

Notice of Allowability	Application No.	Applicant(s)	
	10/703,977	CORLETO ET AL.	
	Examiner	Art Unit	
	SARANG AFZALI	3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed 5/10/2010.
2. ☒ The allowed claim(s) is/are 2-11,13-15,17-25, 30-51, 54 and 55.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>20100830</u> . 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____. |
|---|---|

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Tenley Krueger on 8/30/2010.

The application has been amended as follows:

CLAIMS:

1. (Canceled)
2. (Currently Amended) The method of Claim 4 55 wherein said heat treating increases the yield strength of said devolatilizer nozzle.
3. (Currently Amended) The method of Claim 4 55 wherein said heat treating increases the tensile strength of said devolatilizer nozzle.
4. (Currently Amended) The method of Claim 4 55 wherein said devolatilizer nozzle has a yield strength of at least about 110 ksi.
5. (Currently Amended) The method of Claim 4 55 wherein said devolatilizer nozzle has a yield strength of at least about 200 ksi.
6. (Currently Amended) The method of Claim 4 55 wherein said devolatilizer nozzle has a yield strength of at least about 270 ksi.
7. (Currently Amended) The method of Claim 4 55 wherein said devolatilizer nozzle has a tensile strength of at least 140 ksi.
8. (Currently Amended) The method of Claim 4 55 wherein said devolatilizer nozzle has a tensile strength of at least 210 ksi.

Art Unit: 3726

9. (Currently Amended) The method of Claim 4 55 wherein said devolatilizer nozzle has a tensile strength of at least 290 ksi.
10. (Currently Amended) The method of Claim 4 55 wherein said perforations comprise holes of no more than about 0.01 inches in diameter.
11. (Currently Amended) The method of Claim 4 55 wherein said perforations comprise holes of no more than about 0.03 inches in diameter.
13. (Currently Amended) The method of Claim 4 55 wherein the thickness of said steel plate is from about 0 to about 0.75 inches.
14. (Currently Amended) The method of Claim 4 55 wherein the thickness of said steel plate is no more than about 0.4 inches.
15. (Currently Amended) The method of Claim 4 55 wherein the thickness of said steel plate is no more than about 0.25 inches.
16. (Canceled)
17. (Currently Amended) The method of Claim 4 55 wherein said devolatilizer nozzle comprises at least about 1,000,000 perforations.
18. (Currently Amended) The method of Claim 4 55 wherein said devolatilizer nozzle comprises at least about 1,500,000 perforations.
19. (Currently Amended) The method of Claim 4 55 wherein said devolatilizer nozzle comprises a center-to-center hole distance of at least about 0.08 inches.
20. (Currently Amended) The method of Claim 4 55 wherein said devolatilizer nozzle comprises a center-to-center hole distance of at least about 0.13 inches.
21. (Currently Amended) The method of Claim 4 55 wherein said devolatilizer nozzle comprises a center-to-center hole distance of at least about 0.18 inches.
23. (Currently Amended) The method of Claim 4 55 wherein said steel plate comprises 420 stainless steel.
24. (Currently Amended) The method of Claim 4 55 wherein said steel plate comprises 420F stainless steel.
25. (Currently Amended) The method of Claim 4 55 wherein said steel plate comprises 440A stainless steel.

Art Unit: 3726

26. (Canceled)

27. (Canceled)

28. (Canceled)

29. (Canceled)

30. (Currently Amended) The nozzle of Claim ~~28~~ 54 wherein said devolatilizer nozzle has a yield strength of at least about 200 ksi.

31. (Currently Amended) The nozzle of Claim ~~28~~ 54 wherein said devolatilizer nozzle has a yield strength of at least about 270 ksi.

32. (Currently Amended) The nozzle of Claim ~~28~~ 54 wherein said devolatilizer nozzle has a tensile strength of at least 140 ksi.

33. (Currently Amended) The nozzle of Claim ~~28~~ 54 wherein said devolatilizer nozzle has a tensile strength of at least 210 ksi.

34. (Currently Amended) The nozzle of Claim ~~28~~ 54 wherein said devolatilizer nozzle has a tensile strength of at least 290 ksi.

35. (Currently Amended) The nozzle of Claim ~~28~~ 54 wherein said perforations comprise holes of no more than about 0.01 inches in diameter.

36. (Currently Amended) The nozzle of Claim ~~28~~ 54 wherein said perforations comprise holes of no more than about 0.03 inches in diameter.

37. (Currently Amended) The nozzle of Claim ~~28~~ 54 wherein said perforations comprise holes of no more than about 0.05 inches in diameter.

38. (Currently Amended) The nozzle of Claim ~~28~~ 54 wherein the thickness of said steel plate is from about 0 to about 0.75 inches.

39. (Currently Amended) The nozzle of Claim ~~28~~ 54 wherein the thickness of said steel plate is no more than about 0.4 inches.

40. (Original) The nozzle of Claim 28 wherein the thickness of said steel plate is no more than about 0.25 inches.

41. (Original) The nozzle of Claim 28 wherein said devolatilizer nozzle comprises at least about 500,000 perforations.

Art Unit: 3726

42. (Original) The nozzle of Claim 28 wherein said devolatilizer nozzle comprises at least about 1,000,000 perforations.
43. (Original) The nozzle of Claim 28 wherein said devolatilizer nozzle comprises at least about 1,500,000 perforations.
44. (Original) The nozzle of Claim 37 wherein said devolatilizer nozzle comprises a center-to-center hole distance of at least about 0.08 inches.
45. (Original) The nozzle of Claim 37 wherein said devolatilizer nozzle comprises a center-to-center hole distance of at least about 0.13 inches.
46. (Original) The nozzle of Claim 37 wherein said devolatilizer nozzle comprises a center-to-center hole distance of at least about 0.18 inches.
47. (Original) The nozzle of Claim 28 wherein said steel plate comprises 420 stainless steel.
48. (Original) The nozzle of Claim 28 wherein said steel plate comprises 420F stainless steel.
49. (Original) The nozzle of Claim 28 wherein said steel plate comprises 440A stainless steel.
50. (Original) The nozzle of Claim 28 wherein the capacity of said devolatilizer nozzle is from about 0 to about 75,000 pounds per hour.
51. (Original) The nozzle of Claim 28 wherein the capacity of said devolatilizer nozzle is from about 20,000 to about 50,000 pounds per hour.
52. (Canceled)
53. (Canceled)
54. (New) A devolatilizer nozzle comprising a heat treated and perforated steel plate, wherein said devolatilizer nozzle has a yield strength of at least about 110 ksi.
55. (New) A method comprising:
 - perforating a steel plate;
 - forming a devolatilizer nozzle from said steel plate;
 - heat treating said devolatilizer nozzle; and

Art Unit: 3726

passing a volatile component through the perforations in the devolatilizer nozzle, wherein said steel plate comprises at least about 500,000 perforations and said perforations comprise holes of no more than about 0.05 inches in diameter.

The MPEP § 1214.06 required that independent claims 1 & 28 be cancelled.

The new claim 55 is added to include the allowable subject matter of dependent claim 16 in an independent form and the new claim 54 is added to include the allowable subject matter of dependent claim 29 in an independent form.

In addition, all other dependent claims that used to depend on claim 1 would now depend on claim 55 and all other dependent claims that used to depend on claim 28 would now depend on claim 54.

REASONS FOR ALLOWANCE

2. The following is an examiner's statement of reasons for allowance:

Regarding **claim 22**, the prior art fails to teach or fairly suggest the step of "annealing said steel plate prior to the forming a devolatilizer" in combination with the rest of the claim limitations.

Regarding **Claim 54**, the prior art fails to teach or fairly suggest the claimed limitation of a devolatilizer nozzle having a "yield strength of at least about 110 ksi" in combination with the rest of the claim limitations.

Regarding **Claim 55**, the prior art fails to teach or fairly suggest the step of perforating a steel plate comprise of "at least about 500,000 perforations" in combination with the rest of the claim limitations.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

Art Unit: 3726

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SARANG AFZALI whose telephone number is (571)272-8412. The examiner can normally be reached on 7:00-3:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on (571) 272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SARANG AFZALI/
Examiner, Art Unit 3726
8/30/2010

/DAVID P. BRYANT/
Supervisory Patent Examiner, Art Unit 3726